

[0091] In FIGS. 22 and 23, the self closer bottom **630** is shown as being integral with the self closer living hinge **632**. Also, the self closer rear opening **634** and the rear spring mount **636** can be seen in these views.

[0092] Turning to FIG. 24, the self closer body **610** is shown without the living hinge and the self closer bottom. The view of the interior of the self closer body reveals the self closer latch **620**, the spring chamber **642**, the shuttle track **644**, the forward track stop **646** and the rear track stop **648**.

When viewed with FIGS. 20 – 24, the self closer is disclosed as an elongated member that is comprised mainly of the self closer body **610** that has a spring biased shuttle **612** that rides within the confines of the self closer body **610**. A fully enclosed shuttle **612** and related components occurs when the self closer bottom **630** is brought to the position shown in FIGS 22 and 23. It should be understood, however, that that portion of the self closer bottom **630** that is attached to the self closer body **610** by the living hinge **632** is free to rotate about the living hinge **632**, the rotation not being shown specifically in the drawings but which can be understood given the nature of a “living hinge” and the way it interconnects the self closer body **610** and the self closer bottom **632**.

The term “living hinge” is well understood in the art and has a meaning that is consistent with the way the self closer bottom **632** rotates between an open position and a closed position. For example:

A **living hinge** is a hinge or flexure bearing with no moving parts. It is generally a thin section of the material that bends to allow movement. The lack of any friction or wear in such a hinge makes it essential in the design of MEMS, and the ease of manufacturing and assembly from the reduced part count makes them quite common in disposable packaging. Large-scale living hinges are most often made from polypropylene due to its excellent fatigue resistance.

Retrieved from "http://en.wikipedia.org/wiki/Living_hinge"

In the context of the present invention, the use of the living hinge allows the self closer device to be fabricated as a single piece and yet have a moveable component, e.g., the self closer bottom 632 which can move between an enclosed position (as shown in the drawings) and an open position which is reasonably understood from the way the components are arrayed and given the usual functional attributes that are assigned to such components. If the Examiner is not in agreement with the explanation, an additional drawing can be submitted for the sake of clarity showing the self closer bottom 632 in the open position.

The Examiner also rejected Claims 15-16 on the same basis, the failure to meet the enabling requirement. In response, the Applicant respectfully requests an amendment, as attached, be allowed to the specification in order to clarify the way the quick connect engages the drawer member. The amendment is offered as Exhibit A to this Response.

Rejection under 35 USC § 102

It is respectfully submitted that the Examiner's interpretation of USP 5,364,179 to Brustle, et al, is incorrect. Reference to FIG. 3 of Brustle shows that the body of the self closer (tilt housing) is open as viewed from the bottom and does not possess a "self closer

bottom” as does the present invention. In reviewing Brustle, there did not appear to be any structure that could be termed a “living hinge” and even if there were, there is no indication of a “bottom” to the tilt housing of Brustle that could operate with a living hinge interconnection to the tilt housing.

One of the features of the present invention is that it overcomes a disadvantage found in the prior art design, like Brustle, that do not have a fully enclosed shuttle/tilt member mechanism. In a circumstance such as Brustle, the tilt member assembly will typically be assembled just prior to installation since the spring, the tilt member, and other components are all exposed on the underside of the tilt housing. Unlike Brustle, the self closer of the present invention has a bottom that is attached to the self closer body and which can be closed after the components have been assembled, thereby allowing the present invention to be inventoried and even to be shipped to other locations without risking the disassembly of the components since they are protected within an enclosed body.

Brustle relies upon the surface of the cabinet member to which it is mounted to close off the underside of the tilt housing. While this does end up protecting the interior components, much like the present invention, it does not allow the self closer devices to be stock piled in advance of the time they are needed, nor does it allow them to be pre-assembled and shipped to locations where they might be needed.

With respect to Claims 7-14, USP 6,015,199 to Netzer, et al is cited as anticipating the elliptical dampening coils of the stops of the present invention. In Netzer, a serpentine structure is used as a dampener which allows the drawer member to contact the Netzer stop and compress the structure until the drawer has stopped its travel. Unlike Netzer, the elliptical coils of the present invention are laterally oriented and contact the stop with the full width and height of the face of the elliptical coil as they are compressed. The coil dampener functions in a significantly different manner than the dampener taught by Netzer since the impact of the contact between the stop and the coil is spread across a much larger surface, a contact surface that increases as the coil is compressed. In addition, the compression of the coils of the present invention occurs evenly.

This functional difference is understood when comparing the way Netzer works. The serpentine structure of Netzer offers only a point contact to the stop face upon impact and the structure may be viewed as being vertically oriented. The structure will compress, but only as the segments flex at their bends. The compression of the Netzer dampener does not occur in an even manner since the compression of the structure is asymmetrical. Netzer acts more like a spring (which it is really is) while the coils of the present invention provide more of a cushioning effect that imparts less rebound given the way the forces are dissipated.

Claim 15 (16 has been deleted) is rejected in view of US 2004/0245898 to Amann, et al, which discloses a threaded adjustment for a stop on a drawer slide. The comparison to Amann is highly distinguishable from the teachings of the present invention and as

claimed in Claim 15. There is no toggle structure in Amann as has been shown in the present invention which is shown in isolation in FIG. 17. The toggle 406 of the present invention is a dual faced ramp like component that is adjusted by means of a threaded adjuster, termed the toggle screw adjust 452. This toggle structure has not been shown in any of the prior art and is not shown in Amann. The advantage of the toggle structure is that it combines both infinite adjustability and it leverages the effects of the toggle screw adjust 452 as it is advanced along its threaded engagement. The vertical adjustment devices of the prior art have been restricted in the access to the adjustment means, which is resolved in the present invention by situating the toggle screw adjust 452 in the same axis as the direction of adjustment.

Amann, it is submitted, is actually applied to an end stop that is responsible for adjusting the point at which the drawer actually stops when closed. The “springy tongue” of Amann does not operate as a toggle, it is a resilient surface that dampens the impact of drawer closure to some degree. As such, applying the teachings of Amann, which do not include a toggle and which do not provide for the same type of vertical adjustment directly within the quick connect device, is a very different teaching and cannot in fact be transferred in any way to the present invention to achieve the same type of result. The only similarity is the use of a threaded body that is accessible for adjustment. This is not the novelty of the present invention, the toggle and the way it interacts with the threaded body is very distinctly different and very different from any of the prior art.

Conclusions

It is respectfully submitted that the amendments to the Claims as indicated, and the amendments to the specification have overcome the objections raised by the Examiner. In addition, the explanations with respect to the distinguishing features of the present invention have clarified the points of difference and have assisted in illuminating the invention. It is submitted that there is no combination of prior art that teaches the present invention and that the claims are now in proper form for allowance.

Respectfully submitted;

Cindy Hylk

Dated: March 14, 2006